

Sudip Shekhar

List of Publications by Year in descending order

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68
papers

1,452
citations

304743

22
h-index

345221

36
g-index

68
all docs

68
docs citations

68
times ranked

1285
citing authors

#	ARTICLE	IF	CITATIONS
1	Wavelength tuning and stabilization of microring-based filters using silicon in-resonator photoconductive heaters. Optics Express, 2015, 23, 25084.	3.4	117
2	Feedback control for microring weight banks. Optics Express, 2018, 26, 26422.	3.4	83
3	A Scalable 0.128â€“1 Tb/s, 0.8â€“2.6 pJ/bit, 64-Lane Parallel I/O in 32-nm CMOS. IEEE Journal of Solid-State Circuits, 2013, 48, 3229-3242.	5.4	79
4	Silicon Photonic Circuit Design Using Rapid Prototyping Foundry Process Design Kits. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-26.	2.9	62
5	On the Design of mm-Wave Self-Mixing-VCO Architecture for High Tuning-Range and Low Phase Noise. IEEE Journal of Solid-State Circuits, 2016, 51, 1210-1222.	5.4	55
6	Photoconductive heaters enable control of large-scale silicon photonic ring resonator circuits. Optica, 2019, 6, 84.	9.3	55
7	Prospects and applications of photonic neural networks. Advances in Physics: X, 2022, 7, .	4.1	54
8	A 47\$,imes,\$10 Gb/s 1.4 mW/Gb/s Parallel Interface in 45 nm CMOS. IEEE Journal of Solid-State Circuits, 2010, 45, 2828-2837.	5.4	53
9	In-band full duplex broadband power line communications. IEEE Transactions on Communications, 2016, 64, 3915-3931.	7.8	47
10	A 4â€“32 Gb/s Bidirectional Link With 3-Tap FFE/6-Tap DFE and Collaborative CDR in 22 nm CMOS. IEEE Journal of Solid-State Circuits, 2014, 49, 3079-3090.	5.4	46
11	A 219-to-231 GHz Frequency-Multiplier-Based VCO With ~3% Peak DC-to-RF Efficiency in 65-nm CMOS. IEEE Journal of Solid-State Circuits, 2018, 53, 389-403.	5.4	46
12	An Integrated Discrete-Time Delay-Compensating Technique for Large-Array Beamformers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3296-3306.	5.4	44
13	Strong Injection Locking in Low- Q LC Oscillators: Modeling and Application in a Forwarded-Clock I/O Receiver. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 1818-1829.	5.4	43
14	Crosstalk Penalty in Microring-Based Silicon Photonic Interconnect Systems. Journal of Lightwave Technology, 2016, 34, 4043-4052.	4.6	43
15	Crosstalk in SOI Microring Resonator-Based Filters. Journal of Lightwave Technology, 2016, 34, 2886-2896.	4.6	40
16	A Type-I Sub-Sampling PLL With a $\mu\text{ext}\{m\}^2$ Footprint and $\hat{\sim}255$ -dB FOM. IEEE Journal of Solid-State Circuits, 2018, 53, 3553-3564.	5.4	40
17	Wideband CMOS Amplifier Design: Time-Domain Considerations. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1781-1793.	5.4	35
18	Automatic Configuration and Wavelength Locking of Coupled Silicon Ring Resonators. Journal of Lightwave Technology, 2018, 36, 210-218.	4.6	33

#	ARTICLE	IF	CITATIONS
19	A Dual-Polarization Silicon-Photonic Coherent Transmitter Supporting 552 Gb/s/wavelength. IEEE Journal of Solid-State Circuits, 2020, 55, 2597-2608.	5.4	29
20	CMOS VCO and LNA Using Tuned-Input Tuned-Output Circuits. IEEE Journal of Solid-State Circuits, 2008, 43, 1177-1186.	5.4	27
21	Silicon-Photonics Microring Links for Datacentersâ€™ Challenges and Opportunities. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 194-203.	2.9	25
22	Automated control algorithms for silicon photonic polarization receiver. Optics Express, 2020, 28, 1885.	3.4	25
23	A 2.4-GHz Extended-Range Type-I $\Sigma\Delta$ Fractional-N Synthesizer With 1.8-MHz Loop Bandwidth and -110 dBc/Hz Phase Noise. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 472-476.	3.0	22
24	26.4 A 25.6Gb/s differential and DDR4/GDDR5 dual-mode transmitter with digital clock calibration in 22nm CMOS. , 2014, , .		21
25	Digitally Controlled Analog Cancellation for Full Duplex Broadband Power Line Communications. IEEE Transactions on Communications, 2017, , 1-1.	7.8	19
26	A Hilbert Transform Equalizer Enabling 80 MHz RF Self-Interference Cancellation for Full-Duplex Receivers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 1153-1165.	5.4	19
27	Compact wavelength- and bandwidth-tunable microring modulator. Optics Express, 2019, 27, 26661.	3.4	19
28	A Compact, Voltage-Mode Type-I PLL With Gain-Boosted Saturated PFD and Synchronous Peak Tracking Loop Filter. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 43-53.	5.4	17
29	Crosstalk limitations of microring-resonator based WDM demultiplexers on SOI. , 2015, , .		15
30	A 10-Gb/s ~ 18.8 dBm Sensitivity 5.7 mW Fully-Integrated Optoelectronic Receiver With Avalanche Photodiode in 0.13- μ m CMOS. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3162-3173.	5.4	14
31	30.6 A 6V Swing 3.6% THD > 40 GHz Driver with 4.5Å— Bandwidth Extension for a 272Gb/s Dual-Polarization 16-QAM Silicon Photonic Transmitter. , 2019, , .		14
32	Multicolor localization microscopy and point-spread-function engineering by deep learning. Optics Express, 2019, 27, 6147.	3.4	14
33	Polymer modulators in silicon photonics: review and projections. Nanophotonics, 2022, 11, 3855-3871.	6.0	14
34	Enhancing transmission efficiency of broadband PLC systems with In-Band Full Duplexing. , 2016, , .		12
35	A Differential Push-Pull Voltage Mode VCSEL Driver in 65-nm CMOS. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 4147-4157.	5.4	12
36	Silicon Photonics: A brief tutorial. IEEE Solid-State Circuits Magazine, 2021, 13, 22-32.	0.4	11

#	ARTICLE	IF	CITATIONS
37	Analog interference cancellation for full-duplex broadband power line communications. , 2017, , .		10
38	A Supply-Noise-Insensitive Digitally-Controlled Oscillator. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3414-3422.	5.4	10
39	Four-Element Wide Modulated Bandwidth MIMO Receiver With >35-dB Interference Cancellation. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3930-3941.	4.6	10
40	A dual-tank LC VCO topology approaching towards the maximum thermodynamically-achievable oscillator FoM. , 2015, , .		9
41	A Class-C self-mixing-VCO architecture with high tuning-range and low phase-noise for mm-wave applications. , 2015, , .		9
42	On the Design of Low-Power Hybrids for Full Duplex Simultaneous Bidirectional Signaling Links. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1413-1422.	5.4	9
43	A Compact Dual-Core 26.1-to-29.9GHz Coupled-CMOS LC-VCO with Implicit Common-Mode Resonance and FoM of-191 dBc/Hz at 10MHz. , 2020, , .		9
44	Contra-directional pump reject filters integrated with a micro-ring resonator photon-pair source in silicon. Optics Express, 2021, 29, 25173.	3.4	9
45	Compact Silicon Microring Modulator with Tunable Extinction Ratio and Wide FSR. , 2018, , .		9
46	A Low-Power Bidirectional Link With a Direct Data-Sequencing Blind Oversampling CDR. IEEE Journal of Solid-State Circuits, 2019, 54, 1669-1681.	5.4	8
47	Optimum Conditions for Efficient Second-Harmonic Power Generation in mm-Wave Harmonic Oscillators. IEEE Journal of Solid-State Circuits, 2022, 57, 2130-2142.	5.4	7
48	Strong injection locking of low-Q LC oscillators. , 2008, , .		6
49	A high-performance, yet simple to design, digital-friendly type-I PLL. , 2015, , .		5
50	Automated Adaptation and Stabilization of a Tunable WDM Polarization-Independent Receiver on Active Silicon Photonic Platform. IEEE Photonics Journal, 2020, 12, 1-11.	2.0	5
51	A Tuned-Input Tuned-Output VCO in 0.18µm CMOS. , 2007, , .		4
52	A low-power temperature sensing system for implantable biomedical applications. , 2017, , .		4
53	Measuring on-chip waveguide losses using a single, two-point coupled microring resonator. Optics Express, 2020, 28, 10225.	3.4	4
54	A CMOS 1.6 GHz Dual-Loop PLL With Fourth-Harmonic Mixing. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 860-867.	5.4	3

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55	Silicon Electronics-Photonics Integrated Circuits for Datacenters. , 2016, , .		3
56	Stable and Reduced-Linewidth Laser Through Active Cancellation of Reflections Without a Magneto-Optic Isolator. Journal of Lightwave Technology, 2021, 39, 6215-6230.	4.6	3
57	A low-power DC-to-27-GHz transimpedance amplifier in 0.13-µm CMOS using inductive-peaking and current-reuse techniques. , 2014, , .		2
58	Intraband crosstalk of SOI microring resonator-based optical add-drop multiplexers. , 2015, , .		2
59	Comparison of DAC-less PAM4 modulation in segmented ring resonator and dual cascaded ring resonator. , 2017, , .		2
60	A Transformer-Based Technique to Improve Tuning Range and Phase Noise of a 20-µm 28GHz LCVCO and a 51-µm 62GHz Self-Mixing LCVCO. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 2351-2363.	5.4	2
61	Low phase noise CMOS voltage-controlled oscillators. , 2007, , .		1
62	Wide FSR silicon-on-insulator microring resonator with bent couplers. , 2015, , .		1
63	Injection Locking in Switching Power Amplifiers. IEEE Access, 2020, 8, 167555-167569.	4.2	1
64	A Mach-Zehnder Modulator Quadrature Point Biasing Circuit Immune to Laser Power Fluctuations. , 2020, , .		1
65	RECENT ADVANCES AND DESIGN TRENDS IN CMOS RADIO FREQUENCY INTEGRATED CIRCUITS. International Journal of High Speed Electronics and Systems, 2005, 15, 377-428.	0.7	0
66	Silicon-photonic devices: Electronic control and stabilization. , 2016, , .		0
67	Contra-Directional Couplers as Pump Rejection and Recycling Filters for on-Chip Photon-Pair Sources. , 2019, , .		0
68	Guest Editorial Introduction to the Special Issue on the 2021 IEEE International Solid-State Circuits Conference (ISSCC). IEEE Journal of Solid-State Circuits, 2021, 56, 3207-3208.	5.4	0